Project Checkpoint 1: Preliminary Code & Results

This first checkpoint is designed to move you from the planning stage (Project Primer assignment) to active implementation. The goal is to get you to engage with the code for your project early, run initial experiments, and generate a preliminary result. This process will help you identify potential challenges and refine your project plan. This assignment requires you to submit an 8-slide presentation in Quarto markdown.

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1 Content Requirements

Your submission will consist of three parts spread across eight slides.

Part 1: Project Context (2 slides) This section provides a condensed summary of your project to give graders the necessary context.

- **Slide 1: Problem Statement & Goal**
  - Concisely restate your project's core problem.
  - Clearly state the primary goal or hypothesis you are investigating.
- **Slide 2: Methodology Overview**
  - Briefly describe your proposed technical approach (e.g., the specific model, algorithm, or system design you plan to implement or reproduce).

Part 2: Initial Code Implementation (4 slides) This section is meant to demonstrate your initial coding efforts. The code does not need to be perfect or fully runnable on its own; its purpose is to highlight key components you have started working on. They could be two parts of the same function or two different parts of the code.

- **Slide 3: Code Snippet 1**
  - Show a particularly interesting or important part of your code. This could be data processing, model definition, a key algorithm, etc.
  - **Strict limit of 20 code lines.**
- **Slide 4: Explanation of Snippet 1**
  - Explain what the code on the previous slide does.
  - Justify why this is a key component of your project.
- **Slide 5: Code Snippet 2**
  - Show a second, different code snippet.
  - **Strict limit of 20 code lines.**
- **Slide 6: Explanation of Snippet 2**
  - Explain the function and importance of the second code snippet.

Part 3: Preliminary Result & Analysis (2 slides) This section is for sharing one initial result from running your code.

- **Slide 7: Preliminary Result**
  - Present a preliminary result or prototype demo. This can be a result figure, a demo of your product prototype, or a results table. Minimally, it could even be a single number (e.g., baseline model accuracy) demonstrating that you have successfully set up and run code for your project.
- **Slide 8: Result Analysis & Next Steps**
  - Briefly explain what your result means, even if it's not what you expected.
  - Describe your immediate next steps for the project based on this result.

Note on "No Results": If you were unable to get a result, Slide 7 should instead show a key error message or describe the primary roadblock. Slide 8 must then explain in detail what you tried, why you believe it failed, and what your debugging plan is. This must demonstrate a **good faith effort** to run your code.

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2 Rubric for Grading

Your checkpoint will be graded according to the equally weighted criteria below.

Criterion	Excellent (5)	Good (4)	Satisfactory (3)	Okay (2)	Poor (1)
Project Context	The summary is exceptionally clear and concise. The project's goal and method are immediately understood without reference to the original primer.	The summary is clear and establishes the project's context well.	The summary is present but may be slightly unclear or verbose. The core idea is understandable.	The summary is confusing, incomplete, or lacks a clear connection between the problem and method.	The context is missing or nonsensical.
Code Evidence	Snippets are highly relevant and insightful, showing progress on a core project component. Explanations are crisp and demonstrate a strong understanding of the code's role.	Snippets are relevant to the project. Explanations are clear and connect the code to the project's goals.	Snippets are somewhat relevant but may be trivial (e.g., library imports). Explanations are present but lack depth.	Snippets are irrelevant, confusing, or unexplained. There is little evidence of meaningful coding effort.	No code is provided, or the snippets are trivial and unexplained.

Criterion	Excellent (5)	Good (4)	Satisfactory (3)	Okay (2)	Poor (1)
Results & Analysis	A clear preliminary result is presented with a thoughtful analysis of its implications. Next steps are concrete and logical. If no result, the explanation of failure is detailed, systematic, and demonstrates significant, good-faith debugging effort.	A result is presented with a clear explanation, and the next steps are logical. If no result, the explanation shows a reasonable effort to run code and identify the problem.	A result is present, but the analysis is superficial or next steps are vague. If no result, the explanation of failure is brief or lacks detail about the effort made.	The result is unclear, or the analysis is missing. If no result, the explanation does not demonstrate a good-faith effort.	No result or explanation of failure is provided.